

Schedule of Events

March 21–22, 2018 | Charleston Civic Center



Wednesday, March 21, 2018

Exhibit Halls Open - 10:00 a.m. to 8:00 p.m.

After Hours Reception - 5:30 p.m. to 8:00 p.m.

Thursday, March 22, 2018

Business over Breakfast (BOB) - 8:00 a.m. to 10:00 a.m.

Exhibit Halls Open - 8:00 a.m. to Noon



Seminar Line-up

EXPO has become a meeting ground for numerous trade associations and professional societies. A number of impressive speakers and seminars are offered at EXPO to round out a complete educational experience. Most seminars offer continuing education credit. Consult the seminar sponsor for additional information.

Seminar pre-registration helps with planning, but does not guarantee seating (except for fee seminars which require direct registration with the sponsor). Seating is on a "first-come, first-served" basis.

Most seminars should qualify for continuing education credit for your profession.

All seminars are FREE of charge unless noted otherwise.

NOW ANNOUNCING THE 2018 LINE-UP!

Wednesday **Thursday**
03/21 03/22

| | | |
|----|------------------|--|
| 44 | 8:00am – 10:00am | BOB – "Business Over Breakfast" Location: Charleston Civic Center • Speaker: |
| 45 | 8:00am – 9:00am | CULTEC Stormwater Solutions Location: Conference Room 204 • Speaker: Fred Dotson, Cultec, Inc. |
| 46 | 8:00am – 12:00pm | West Virginia Rural Water Association – 1st Quarter Board Meeting Location: Parlor E • Speaker: Amy Swann |



| | | |
|----|-------------------|---|
| 47 | 9:00am – 10:00am | Alternative Fuel Vehicles in WV Location: Parlor C • Speaker: W.Va. Office of Energy and National Alternative Fuels Training Consortium |
| 48 | 9:00am – 11:00am | WV Section American Society of Civil Engineers Board Meeting Location: Conference Room 201 • Speaker: American Society of Civil Engineers - WV Section |
| 49 | 9:00am – 10:00am | Nonstructural Flood Risk Adaptive Measures for Flood Risk Management Location: Parlor B • Speaker: USACE National Nonstructural Committee - Randy Behm / Steve O'Leary |
| 50 | 9:00am – 12:00pm | Cost of Wastewater Location: Conference Room 202 • Speaker: Jim Johnson |
| 51 | 9:00am – 12:00pm | Asset Management Re-Visited Location: Conference Room 203 • Speaker: Bertis McCarty and Mike Hersman |
| 52 | 9:00am – 10:00am | American Iron and Steel Requirements for the State Revolving Fund – Training Location: Parlor C • Speaker: US Environmental Protection Agency, Leslie Corcelli and Kiri Anderer |
| 53 | 9:30am – 10:30am | ALL IN – Building a Prosperous Future for West Virginia with USGBC Location: Parlor A • Speaker: Cindy Zork and Marisa Long, U.S. Green Building Council |
| 54 | 10:00am – 11:00am | Concrete Cloth “Concrete on a Roll” case study Location: Conference Room 204 • Speaker: Scott Navia, Milliken Infrastructure Solutions, LLC |
| 55 | 10:00am – 11:00am | New BS Program in Construction Management at WVU Tech Location: Parlor C • Speaker: Z. Torbica, WVU Institute of Technology |

| | | |
|----|-------------------|---|
| 56 | 10:00am – 11:00am | Helical Design Theory and Applications Location: Conference Room 205 • Speaker: Darin Willis, P.E. or Sam Rosenber, Ph.D., P.E. |
| 57 | 10:30am – 12:00pm | The AIA 2017 Document Changes What You Need to Know Location: Parlor B • Speaker: Eric Teske, Associate AIA & Robert P. Gavin AIC, ARM, CPCU |
| 58 | 11:00am – 12:00pm | Bentonite Composites for Leak Control Location: Conference Room 204 • Speaker: Kevin Vantuyl AquaBlok |
| 59 | 11:00am – 12:00pm | Maximize Your Site Footprint with Large Precast Modular Block Walls Location: Parlor C • Speaker: Bill Henzler, ReCon Wall Systems Inc. |
| 60 | 11:00am – 12:00pm | Electronic Submission System (ESS) General Overview Location: Parlor A • Speaker: Alice Cooper, Savannah Perry, and Tricia Sizemore - WVDEP |
| 61 | 11:30am – 2:00pm | WV Society of Professional Engineers Board Meeting Location: Conference Room 201 • Speaker: WV Society of Professional Engineers |
| 62 | 1:00pm – 2:00pm | The Design and Application of Modular Stormwater Detention/Control Systems Location: Conference Room 204 • Speaker: John Kienlen, ABT, Inc. |
| 63 | 1:00pm – 2:30pm | Preserving West Virginia River Heritage Through Adaptive Flood Risk Management Location: Parlors A&B • Speaker: USGBC, EPA, FEMA, WV Brownfields, HUD |
| 64 | 1:00pm – 2:00pm | Mine Subsidence Engineering: An Overview Location: Conference Room 203 • Speaker: Dr. Gennaro G. Marino, P.E., D.GE - Marino Engineering Associates, Inc. |
| 65 | 2:00pm – 3:00pm | Culvert Lining for Rehabilitation of Failing and Aging Culverts Location: Conference Room 204 • Speaker: Joe Nagy, Uponor |

A Note to Seminar Presenters

Expo agrees to provide Seminar Sponsors a free room, normally set with theatre style seating, including a screen; projection cart; power cord; display/head table; podium; registration table in rear of room; and a PA system with a podium microphone and lavalier microphone. Any other audio visual equipment, including laptop computers, pointers and projectors, are the responsibility of the seminar sponsor or their presenter. Wireless internet will be provided by Expo in each seminar room. Expo will list your seminar title and description on the Expo website and, upon request, provide you a pre-registration list.

Expo Photo Policy

Please note that attendees' images may be captured and used in print on the web or in future promotional media. By registering or entering the halls and/or seminars, you are consenting to this.

Questions?

Please Email us at expo@wvexpo.com (<mailto:expo@wvexpo.com>)

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SUBMIT





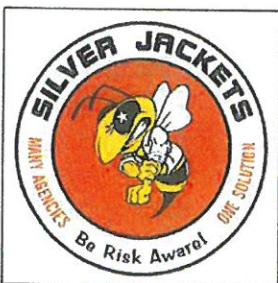
U.S. ARMY CORPS OF ENGINEERS

Silver Jackets Program

BUILDING STRONG®

OVERVIEW:

Silver Jackets teams are collaborative state-led interagency teams, continuously working together to reduce flood risk at the state level. Through the Silver Jackets program, the U.S. Army Corps of Engineers; the Federal Emergency Management Agency; and additional federal, state and sometimes local and Tribal agencies provide a unified approach to addressing a state's priorities.



Often, no single agency has the complete solution, but each may have one or more pieces to contribute. The Silver Jackets team is the forum where all relevant agencies come together with the state to collaboratively plan and implement that interagency solution. Through partnerships, Silver Jackets optimizes the multi-agency utilization of federal resources by leveraging state/local/Tribal resources, including data/information, talent and funding, and preventing duplication of effort.

The primary goals of the Silver Jackets program are to facilitate strategic life-cycle flood risk reduction; create or supplement a continuous mechanism to collaboratively solve state-prioritized issues and implement or recommend those solutions; improve processes, identifying and resolving gaps and counteractive programs; leverage and optimize resources; improve and increase flood risk communication and present a unified interagency message; and establish close relationships to facilitate integrated pre-flood planning, event response and post-disaster recovery solutions.

SILVER JACKETS PROGRAM GOALS:

- ✓ Facilitate strategic life-cycle flood risk reduction.
- ✓ Create or supplement a continuous mechanism to collaboratively solve state-prioritized issues and implement or recommend those solutions.
- ✓ Improve processes, identifying and resolving gaps and counteractive programs.
- ✓ Leverage and optimize resources.
- ✓ Improve and increase flood risk communication and present a unified interagency message.
- ✓ Establish close relationships to facilitate integrated post-disaster recovery solutions.

"Silver Jackets allows the State and Federal partners to work seamlessly...and anticipate needs during disaster events. The Silver Jackets program maximizes the funding available...and allows the team members to work together in a synergistic manner, tapping into one another's needs and capabilities, thus creating ...services that otherwise would not be available. The program allows the partner agencies to look ahead and identify potential challenges and identify solutions to address those challenges before they happen." - Manuela Johnson, Indiana Department of Homeland Security

U.S. ARMY CORPS OF ENGINEERS – HUNTINGTON DISTRICT

502 Eighth Street, Huntington, WV 25701

<http://www.lrh.usace.army.mil>

WHAT THE CORPS CAN DO FOR YOU:

A portion of Corps Flood Plain Management Services (FPMS) funding is allocated to interagency work. The FPMS budget was increased in order to achieve the Administration's objective to utilize the agency's expertise in engineering to provide local communities and States with technical and planning assistance regarding the development and implementation of nonstructural approaches to manage and reduce flood risks.

INTERAGENCY NONSTRUCTURAL FLOOD RISK MANAGEMENT PROPOSALS:

Interested parties are encouraged to work with the **Pittsburgh District** to develop Silver Jackets proposals that meet the following **selection criteria**:

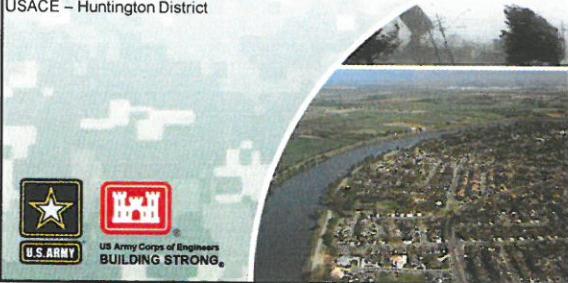
- ✓ Directly protects life safety, reduces or prevents increases in flood risk, and/or increases resiliency (the ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions). For example, reduces future flood consequences (including reduced exposure or vulnerability), reduces future emergency response needs, or improves flood recovery time.
- ✓ Promotes shared responsibility for flood risk management by prompting actions by others in support of risk reduction. For example, raises flood risk awareness by identifying and communicating flood risk to target audiences, provides better tools incorporating new data to enable wise decisions, or clearly enables or prompts action by others such as implementing actions in a floodplain management plan or developing a floodplain management plan.
- ✓ Addresses priority in State or Local Hazard Mitigation Plan.
- ✓ Leverages partner resources and is completed in collaboration with partners. Partners may include Tribal, Federal, State, local, and/or ongoing teams and task forces with a role in carrying out the proposed effort, thus helping achieve an interagency solution. Leveraged resources may include data/information, expertise, and funding.

Additionally, proposals will be **judged more favorably** if they illustrate innovation through **nonstructural flood risk management**, particularly in evaluating benefits; improve environmental function; or result in non-monetary social benefits (excluding life safety, resilience, or raising awareness, since those are reflected in other criteria.) Corps Headquarters maintains final approval for proposals requesting use of alternative procedures for developing benefits.

Deadline: The most recent Silver Jackets proposals were provided to the Great Lakes and Ohio River Division by **Wednesday, 20 July 2016**.

West Virginia Silver Jackets

Joe Trimboli
West Virginia Silver Jackets
USACE – Huntington District



Silver Jackets is . . .

- Interagency team that coordinates and collaborates to manage/reduce flood risk.
- On-the-ground implementation of USACE National Flood Risk Management Program.



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USACE Silver Jackets Program Goals

- Facilitate strategic life-cycle flood risk reduction.
- Create or supplement continuous mechanism to collaboratively solve state-prioritized issues and implement or recommend those solutions.
- Improve processes, identifying and resolving gaps and counteractive programs.
- Leverage and optimize resources.
- Improve and increase flood risk communication and present a unified interagency message.
- Establish close relationships to facilitate integrated post-disaster recovery solution.

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Silver Jackets Teams

- State-led teams
 - Primarily flood hazard focused
- Multi-agency coordination and collaboration
 - Technical expertise, data, funding
- Strategic life-cycle risk mgt
- Shared responsibility
- Watershed perspective



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Typical Team Structure

- State or USACE coordinates/facilitates
- Regularly recurring meetings
- Strive for consensus
- Membership expands/contracts depending on issues (Federal, State and/or local)
- Evolves with State's needs
- Non-binding guiding document



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State Team Participation

- USACE & FEMA offer to develop team with State Hazard Mitigation Officer (SHMO) and State National Flood Insurance Program (NFIP) Coordinator
- State invites additional participants in accordance with state priorities
 - ▶ Federal participation may include: FEMA, USGS, NRCS, NOAA-NWS, NWS Coastal Services, HUD, USFWS, USFS, EPA, USBR, FHWA, EDA, NPS
 - ▶ State participation may include: Depts of Nat'l Resources, Homeland Security, Emergency Management, Transportation, Economic Dev, Water Conservation Board, Environmental Protection
 - ▶ Occasional Local, Tribal, NGO and/or private participation



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Funding

SJ Team Coordination Funds

- USACE participation
 - FCCE through 2013 \$0.86M \$1.27M \$1.66M \$1.84M \$2.0M \$2.0M \$2.3M
 - FY14 NFRMP
- \$50K /per state team

Interagency Projects

- 206 interagency projects
- 45 states and DC
 - 185 Nonstructural / FRM
 - 13 Levee Safety (FCCE)
 - 6 Other (2 via NFRMP, 4 FCCE)

| Fiscal Year | Number of Projects |
|-------------|--------------------|
| FY11 | ~1,000 |
| FY12 | ~2,000 |
| FY13 | ~2,500 |
| FY14 | ~2,200 |
| FY15 | ~3,000 |
| FY16* | ~6,500 |

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West Virginia Silver Jackets

- West Virginia Silver Jackets team was established by signing a charter in 2013
- Key Goals
 - Assist in identifying actions to reduce the threat, vulnerability, and consequences of flooding
 - Foster leveraging of available resources and information among agencies
 - Develop regional flood risk reduction strategies
- Program Status
 - Pre – FY17 - two interagency projects since 2014 – providing \$230K in Federal funds and leveraging over \$160K in-kind contributions
 - Levee Safety Outreach (ongoing)
 - Lincoln county Mitigation Framework (ongoing)
 - FY17 – Three new interagency projects
 - BFE Training (ongoing)
 - No-Rise Certification (ongoing)
 - Tucker County – ABFE (ongoing)
 - Green Infrastructure in Hazard Mitigation Planning (ongoing)
 - FY18 – TBD – HQUSACE Currently Accepting Proposals

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QUESTION?

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*State of West Virginia
Jim Justice
Governor*

H. Wood Thrasher, Cabinet Secretary
DEPARTMENT OF COMMERCE

December 28, 2017

www.wvcommerce.org
(304) 558-2234

The Honorable Ed Gaunch
West Virginia State Senate
Co-Chairman Joint Committee on Flooding
Room 217W, Building 1
State Capitol Complex
Charleston, WV 25305

Re: State Resiliency Office Board 2017 Annual Report for House Bill 2935

Dear Chairman Gaunch:

The June 2016 disaster, deemed a 1000-year flood, changed the Mountain State forever. The devastation claimed 23 lives and thousands of homes and businesses. While we continue to mourn our loss, we strive to bring meaning to this tragedy. In the last year and a half, there has been beauty from the ashes in the way of resources, communities growing stronger, and collaboration like we have never experienced before.

One of the most incredible accomplishments since June 2016 has been House Bill 2935. With the help of many key stakeholders, HB2935 passed in April 2017, creating a standard of recovery and resilience that will make our future strong. Working together, the State Resiliency Office guided by the State Resiliency Office Board and the Joint Legislative Committee on Flooding have begun to make strides in the direction of a more secure future for all West Virginians.

As required by the legislation, it is my pleasure as the Chair of the State Resiliency Office Board to present this annual report to the Joint Legislative Committee on Flooding. The following are some key examples of the major accomplishments of 2017:

- **April 23rd 2017** – Passing of HB2935.
- **June 23rd 2017** - Signing of HB2935 by Governor Jim Justice, House Speaker Tim Armstead, and Senate President Mitch Carmichael. This established the Joint Legislative Committee on

Flooding, created the Resiliency and Flood Protection Planning Act, created the State Resiliency Office within the West Virginia Development Office in the West Virginia Department of Commerce, and established a State Resiliency Office Board.

- **September 13th-14th** – Community Advancement and Development, a division of the West Virginia Development Office, presented the inaugural IMPACT Summit, explaining the State Resiliency Office to key partners, the Regional Planning Development Councils.
- **October 16th** – First State Resiliency Board Meeting convenes.
- **November 7th** - Governors Recovery and Alliance Session took place. All major stakeholders, including state and federal partners and West Virginia's Congressional Delegation, met with the State Resiliency Office Board to collaborate on Flood Recovery. This was followed by a State Resiliency Working Group with representatives from each member on the State Resiliency Office Board.
- **November 21st** – State Resiliency Office Working Group met again to discuss steps forward from Governors Recovery Session.
- **December 14th** - State Resiliency Office Working Group met to continue path forward discussions including the formation of a framework Charter of the State Resiliency Office, currently forming within the West Virginia Development Office's Community Advancement and Development division.

In 2018 we are hopeful to continue building upon the momentum of the State Resiliency Office. Our goal is to transition from blueprints to reality and continue to develop this greatly needed resource. While the flood of 2016 established the State Resiliency Office, resiliency is much broader than natural disasters. We have been encouraged by federal and state partners as well as stakeholders to create an office that stabilizes West Virginia to absorb shocks and stressors of all kinds. These elements may include hazards to health, natural disasters, economic downturn, and in some cases, the ability to take advantage of opportunities and adapt for the future. By having a proactive mindset, we are confident West Virginia can capture new and innovative opportunities and funding sources, counteracting the shocks and stressors our state may experience.

We began a charter to provide a foundation and direction to the State Resiliency Office considering several sectors or broad focus areas such as:

- *Health, Housing, Infrastructure, Environmental and Natural Resources, Planning and Policy, Public Information and Education, and Economic Development.*

Each sector will specialize programmatically, while working together as a hub of resources within the Community Advancement and Development Division of the West Virginia Development Office. The West Virginia Development Office will lead the West Virginia Department of Commerce's efforts for the State Resiliency Office.

There will be significant funding from U.S. Department of Housing and Urban Development and FEMA that will assist the State Resiliency Office in its operations and efforts. While not under the direct purview of the State Resiliency Office, the funds are administered by the West Virginia Department of



Commerce and the West Virginia Department of Homeland Security and Emergency Management who are both members of the State Resiliency Office Board. The agencies charged with oversight of these funds can utilize the State Resiliency Office's expertise for support in effective decision making. These disaster recovery grants assist to rebuild the affected areas impacted by the recent natural disaster and provide crucial seed money for the recovery process, as well as prevention of future hazards. The funds will be utilized to assist West Virginia's recovery efforts in the housing sector, as well as infrastructure, mitigation, and economic revitalization.

This is a significant undertaking that has never been accomplished in West Virginia, but has been successful in other states dealing with disaster or realizing the need to prepare for the future. Many changes must flow to a local level if we are going to see long term, sustainable success for our state. We see great opportunity for the Mountain State and appreciate the Legislature's forward thinking for HB 2935. This is more than an office; it's changing a culture that continues to do things the way it has always been done, even if it is not working. We do not want to continue to just survive. We want to thrive.

We are honored to be a part of an initiative that is challenging, but necessary for our state. Our success in this venture is long term in nature, but we will see many achievements as we progress. If we are not investing in West Virginia for future generations, then we are not truly making an impact. Together with the State Resiliency Office, our Board, and the Joint Legislative Committee on Flooding, we are hopeful for the future of this great State, and look forward to a year of growth, resiliency, and change in 2018.

Sincerely,

H. Wood Thrasher, P.E.
H. Wood Thrasher, P.E.
Cabinet Secretary

cc: Delegate Roger Hanshaw
State Resiliency Office Board Members





*State of West Virginia
Jim Justice
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DEPARTMENT OF COMMERCE

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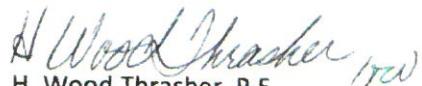


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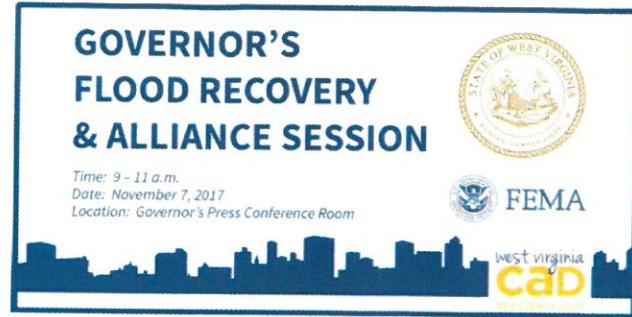
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Sincerely,


H. Wood Thrasher, P.E.
Cabinet Secretary

cc: Senator Ed Gaunch
State Resiliency Office Board Members





Meeting Summary & Outline of Unified Strategy

I. Summary

On November 7, 2017, Governor Jim Justice convened senior-level state and federal officials to create a unified strategy regarding disaster recovery funds from the floods of 2016. The discussion was the first in a series of senior level meetings to look at strategically aligning those funds. The meeting was an important step in the creation of the strategy and empowered appointed action officers to create a strategy to align and leverage the disaster funding.

The action officers were tasked to further explore options and bring recommendations to the senior officials for approval. They will meet on a more regular basis to draft a unified strategy for 2016 funds and delve into the roles and responsibilities of state departments and divisions. This role will also support the establishment of the West Virginia State Resiliency Office (SRO). All efforts combined will ensure that West Virginia becomes more resilient and continues to take a unified and strategic approach to disaster recovery.

The facilitated discussion addressed five major topics:

- 1. Ranked Priorities**
- 2. Guiding Principles**
- 3. Reprioritization of Hazard Mitigation Grant Program (HMGP) Applications**
- 4. Reallocation of Community Development Block Grant –Disaster Recovery (CDBG-DR) Funds**
- 5. Role of Action Officers**

Sections II through VI of this document provide more detail on each major topic and what was agreed to during the Session. These sections can serve as the basis for a unified strategy regarding 2016 flood funding. The final section (VII) proposes next steps for the senior leadership group and the action officers.

Also included are two appendices: a list of Session attendees and detailed notes from the proceedings.

II. Ranked Priorities

Much of the morning session focused on the need to identify priorities for the State's disaster recovery funds from the June 2016 floods. The disaster marked the first time that West Virginia received a CDBG-DR allocation and it was the largest amount of HMGP funds ever received. Due to the complexity of the situation, the meeting was convened to ensure that there was a holistic strategy for the use of these recovery funds. The facilitator proposed overarching priority areas based upon the functional areas where funds were already earmarked. This led to a lengthy and detailed discussion regarding priorities. The resulting ranked priority areas were identified, ranked and confirmed:

1. Infrastructure
2. Economic Development
3. Housing

III. Guiding Principles

While determining priorities, participants discussed overarching ideas or principles that should influence all decision making in the state. The prevalent theme in the discussion was ensuring that funding decisions and recovery efforts should decrease risk over time and make communities more resilient. It was decided that the group would use guiding principles to serve as "decision points" when looking at the merit of state funded projects, with three guiding principles identified:

1. Resiliency
2. Mitigation
3. Job Creation

IV. Reprioritization of HMGP Applications

With the influx of disaster recovery funds, recovery programs have the potential to duplicate efforts and even convolute the recovery process. Concerns were raised that both CDBG-DR and HMGP were allocating more funding towards housing recovery than the existing unmet need. There was also discussion about needs in the other function areas. The West Virginia Department of Homeland Security & Emergency Management (WV DHSEM) and the West Virginia Department of Commerce (WV DOC) began meetings to discuss in part how to best coordinate the two programs. As a result of these meetings and the Session, the WV DHSEM is now looking at the reprioritization of grant applications and ways to streamline the HMGP/CDBG-DR funding match, with agreement on the following:

1. WV DHSEM will review their submitted applications and prioritize infrastructure projects before housing.
2. Housing will still be addressed through HMGP, but all applicants will be given the opportunity to apply for housing assistance through the CDBG-DR program.
3. WV DHSEM and WV DOC will coordinate to ensure that all applicants are served by the program that best fits their situation and needs.
4. WV DHSEM and WV DOC will continue to meet and discuss coordination of the two programs and the CDBG-DR match for the HMGP program.

V. Reallocation of CDBG-DR Funds

A large portion of the meeting revolved around the HUD CDBG-DR program and how it can strategically support recovery. Currently, over \$100 million is allocated to address the unmet housing need in the impacted areas. Through efforts by VOAD and other volunteer groups, it is estimated that over 1,000 homes have been rebuilt or rehabbed since June 2016. Participants of the session questioned whether there was \$100 million left in unmet housing needs, or if some of the funding should be reallocated to support infrastructure and economic development. WV DOC agreed to work with HUD to determine the steps and requirements to ultimately reallocate funds once the housing need has been fully met. HUD has outlined the necessary steps to reallocate the funds so that the state can address other unmet needs:

1. If the State wishes to revise their action plan amendment to eliminate or reduce housing activity, they will need to provide revised unmet need data and strong evidence that unmet disaster related Low/Moderate Income (LMI) housing needs have been met.
2. The State will also need to provide data to support unmet needs for proposed replacement activities (e.g. infrastructure or economic development projects). The 11/21/16 Federal Register notice says that given the large damage to housing from the disaster, the State should focus on unmet housing need, but it does allow for States to allocate funds to infrastructure or economic development.
3. If the state wishes to undertake infrastructure or economic development activities, they must do the following:
 - a. Amend their action plan
 - b. Provide data for unmet infrastructure or economic development needs
 - c. Provide information about how unmet housing needs have been met, or how infrastructure or economic development activities will contribute to the restoration of housing and long-term recovery in the most impacted and distressed communities.

VI. Proposed Role of Action Officers

The senior officials agreed that the action officers will be the point of contact and participate in subsequent meetings regarding the development and implementation of the priorities/strategies developed at the session. The officers have a working knowledge of the agency's programs, resources and authorities and will be available to meet and represent their respective agency through implementation. Federal partners will serve in an advisory/consulting role as needed during the implementation process. During the first session, there was consensus that the action officers should address the following specific tasks:

1. Identify agency programs, resources and authorities to support disaster recovery.
2. Address priority areas where consensus was not gained and provide recommendations to senior officials.
3. Identify additional resources and technical assistance that can be offered to disaster impacted communities.
4. Identify additional coordination opportunities within their respective departments and network.
5. Create the framework and strategies for an action plan related to recovery efforts.

VIII. Proposed Next Steps

Since the session, there have been multiple meetings of the Action Officers and discussions regarding implementation of the established priorities and principles. These discussions have evolved to include roles and responsibilities of the SRO and future meetings will work to simultaneously address both initiatives. The key focus will be to ensure that the disaster funds from 2016 are strategically expended, while also establishing the SRO and championing resiliency across all sectors of the state. To do so, stakeholders will need to continue to meet on a regular basis and ensure that a strong focus and commitment is made to resiliency.

Additionally:

1. Reconvene a follow-up "session" to the 11/7/2017 Session
2. Merge the roles and responsibilities of action officers with committee assignments for SRO board.
3. Continue to meet at the action officer level to implement decisions made by senior officials.
4. Assist with the creation of the SRO charter, framework and work plan.
5. Bring recommendations to the senior officials and SRO board for review and approval.
6. Continue to meet until all funds from 2016 are allocated and the SRO is fully established.

State of Connecticut
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(Annex to the State Natural Disaster Plan, 2009)



Prepared by:
State of Connecticut
Department of Energy and Environmental Protection
Daniel C. Esty, Commissioner

Disclaimer:

This Disaster Debris Management Plan is intended as a guidance document. It does not constitute a complete reference to state, federal or local laws. In the event of inconsistency between this document and the regulatory language, the language in Connecticut's General Statutes and the solid waste management regulations. It is your responsibility to comply with all applicable laws. Relying on the information in this disaster debris management plan will not protect you legally and may not be relied upon to create a right or benefit substantive or procedural, enforceable at law or in equity by any person. Final determination of the proper handling and disposal of waste is the sole responsibility of the generator.

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ENDORSEMENT

The Connecticut Department of Energy and Environmental Protection (DEEP) has revised the *State of Connecticut's Disaster Debris Management Plan, June 2013* pursuant to the authorities of the Commissioner and as an annex to the *State of Connecticut's Natural Disaster Plan, 2009*. This Plan supersedes the *Disaster Debris Management Plan dated September 2006*.

SIGNATURE:

Daniel C. Esty
Commissioner
✓
Connecticut Department of Energy and Environmental Protection

DATE:

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EXECUTIVE SUMMARY

Introduction

The State of Connecticut Department of Energy and Environmental Protection (DEEP) has revised the *State of Connecticut's Disaster Debris Management Plan, September 2006*, (the Plan) pursuant to the authorities of the Commissioner and as an annex to the *State of Connecticut's Natural Disaster Plan, 2009*. DEEP has been working with the State of Connecticut's Department of Emergency Services and Public Protection's Division of Emergency Management and Homeland Security (DESPP/DEMHS) and other State and Federal agencies, the United States Environmental Protection Agency (USEPA), United States Army Corps of Engineers (USACE), the Federal Emergency Management Agency (FEMA), and Connecticut's municipalities to prepare the State in protecting the health and welfare of Connecticut's citizens in the event of a major natural disaster. The State's *Disaster Debris Management Plan* establishes the framework for State agencies and municipalities to facilitate the proper management of debris generated by a natural disaster; i.e., hurricane, tornado, flood, ice storm. Implementation of the *State's Disaster Debris Management Plan* will be coordinated through the State's Emergency Operations Center and DESPP/DEMHS, utilizing State agencies working under the "General Emergency Operations, State Agency Mission Assignments, and Natural Disaster Operations" as outlined in the *State's Natural Disaster Plan*.

DESPP/DEMHS considers a Category 3 hurricane as the most probable, worst-case disaster scenario facing the State. The 1938 hurricane and the flooding of 1955 that resulted from heavy rainfall associated with the remnants of two hurricanes are recorded as the worst natural disasters to strike Connecticut. Though not as strong as the 1938 hurricane, hurricanes Gloria (1985) and Bob (1991) are two of the more potent hurricanes impacting the State during the past twenty-five-year period. In 2011, the State was greatly impacted by the January Snowstorm, Tropical Storm Irene and the October Snowstorm, an unusually early nor'easter. The latter two storms damaged a large number of trees, and as a result, approximately 800,000 homes were left without power, some for longer than a week. In 2012, the State was impacted by Hurricane Sandy, which caused severe coastal flooding, tree damage and massive power outages. Most recently, in February 2013, a massive blizzard hit the Northeast bringing more than 3 feet of snow to some areas, which left thousands of people without power and/or a means to travel.

Using the USACE debris modeling formula, DEEP has estimated that approximately 43 million cubic yards (CY) of debris would be generated by a Category 3 hurricane. The types of debris resulting from such natural disasters include: green waste/vegetative debris; putrescent municipal solid waste; household hazardous waste; hazardous waste; construction and demolition debris (C&D) from structures; aggregate (fill materials); scrap metal; white goods; electronic waste; contaminated soil, silt, and sediment; animal mortalities; vehicles and boats; waste tires; and utility related debris.

Objectives of the State's Disaster Debris Management Plan

The objectives of the Plan are to:

- Serve as a resource for the State and as an annex to the *State's Natural Disaster Plan*, as well as to assist other State agencies and municipalities in their disaster debris management planning efforts.
- Facilitate the implementation of emergency waste management practices so as to ensure that any measures that are undertaken are consistent with protecting Connecticut's natural resources to the greatest extent possible, as well as being consistent with the *State of Connecticut's Solid Waste Management Plan, amended December 2006*.

Connecticut's Approach to Debris Management

Connecticut's *Disaster Debris Management Plan* functions within the framework of the *State's Solid Waste Management Plan*, in that the approach used in managing disaster debris is as follows:

- Divert as much material from disposal as possible through recycling, composting and other legitimate diversion options;
- Utilize volume reduction techniques to improve debris management efficiencies and minimize impacts on landfill capacities;
- Use Connecticut's in-state disposal capacity for disposal of disaster debris as efficiently as possible, recognizing that most C&D waste is transferred out-of-state for disposal. Also, allow for temporary tonnage increases at permitted in-state solid waste facilities on an emergency basis;
- Rely on permitted Transfer Stations to transfer waste that cannot be diverted from disposal (recycling, composting, other) to waste handling facilities out-of-state for disposal;
- Rely on permitted Volume Reduction Facilities to reduce and transfer waste that cannot be diverted from disposal to waste handling facilities out-of-state for disposal;
- Consider alternative technologies for managing portions of the debris waste stream, in-state or out-of-state (i.e., biomass facilities); and
- Use approved temporary Debris Management Sites (DMS) for processing debris for recycling and/or final disposal.

Roles and Responsibilities

Federal: There are a number of federal agencies invested with varying authorities for debris management activities. These agencies include the US Department of Homeland Security, FEMA, USACE, USEPA, United States Coast Guard (USCG), Federal Highway Administration (FHWA), and Departments of Agriculture, Commerce, and Transportation. The Robert T. Stafford Emergency Relief and Disaster Assistance Act (PL 93-288, as amended, and referred to as *the Stafford Act*) is the federal legislation that created a national program for disaster preparedness, response, recovery, and mitigation. This Act constitutes the statutory authority for most federal disaster response activities, especially as they pertain to FEMA and FEMA programs.

FEMA is the lead federal agency that responds to disasters and emergencies to help save lives and protect the public health, safety, and property. FEMA operates under specific regulations, which are found in

Title 44 of Code of Federal Regulations (CFR). The Stafford Act and the CFR use the term “debris removal” in a broad sense to encompass the entire process of removing, handling, recycling, and disposing of debris. This regulation declares debris removal to be in the public interest, not only to protect life, public health, and safety, but also to ensure economic recovery of the affected community.

FEMA’s most visible role in disaster recovery and debris management is in administering the Public Assistance (PA) Grant Program. The Program provides supplemental federal disaster grant assistance to eligible applicants which include states, local governments, and certain non-profit organizations for debris removal and disposal. The Program is administered through a coordinated effort among FEMA, the affected state, and the applicants. Communication and coordination among all of these agencies are important. After an emergency event, the State assumes the role of “grantee” and is responsible for administering the federal grant. Eligible applicants may receive PA funds for debris clearance, removal, and disposal operations.

State: There are a number of primary and supporting State Agencies that are responsible for some aspect of disaster debris management. The primary State Agencies make up the Interagency Debris Management Task Force (IDMTF) which will participate in all preparedness activities and serve as operational representatives when debris management and monitoring activities are undertaken and assign work for the State debris management and monitoring contractors by developing task orders.

The primary agencies that have lead responsibilities with regard to disaster debris management are presented below:

- **Emergency Services and Public Protection’s Division of Emergency Management and Homeland Security, Department of (DESPP/DEMHS):** Assigning staff to serve on the IDMTF. Administering the state contract for debris management and removal services. Requesting teams and equipment from the State debris contractors. DESPP/DEMHS, Department of Transportation, Department of Motor Vehicles, and Connecticut State Police will coordinate on waiver and permitting issues for contracting equipment. Coordinating the establishment and maintenance of communications with affected and/or threatened areas. Coordinating the delivery of assistance to local governments and state agencies as requested and available. Receiving and evaluating situation reports from local governments, state agencies, utility companies, and private non-profit relief organizations. Determining the need for, requesting and coordinating a Preliminary Damage Assessment (PDA) of the disaster-affected areas in conjunction with FEMA. Drafting, for the Governor’s signature, formal requests for Presidential disaster and emergency declarations under the Stafford Act and U.S. Small Business Administration disaster declarations. Coordinating the Federal/State Agreement and meeting subsequent to a Presidential declaration. Expediting establishment of special accounts for disaster assistance funds and taking other actions necessary to expedite the availability of disaster assistance funds to local governments and individual disaster victims.
- **Energy and Environmental Protection, Department of (DEEP):** Assigning staff to serve on the IDMTF. Administering the state contract for Disaster Debris Monitoring Services. Requesting teams and equipment from the State debris contractors. Providing technical assistance to state agencies and local authorities regarding the management of disaster debris including the provision of a municipal guidance document for the management of disaster debris and providing public information announcements. Identifying properties suitable for DMS. Approving and issuing emergency authorizations for DMS and monitoring the DMS. Per State contract,

confirming that final destination sites are acceptable for the reuse, recycling or disposal of disaster debris. Providing emergency response to hazardous materials spills. Providing technical assistance on timber salvage, emergency debris management, and open burning. Assessing the State's critical infrastructure (related to DEEP's oversight), including but not limited to, public and private utilities (nuclear, gas, electric, telecommunications), dams, water supply plants, waste water treatment plants and pumping stations, resource recovery facilities and marine terminals). Assessing safety conditions and continuity of operations at DEEP's facilities. Providing qualified personnel as requested by DESPP/DEMHS to serve on joint Federal/State Preliminary Damage Assessment Teams to assess municipal property damage and damage to DEEP lands and facilities.

- **Transportation, Department of (ConnDOT):** Assigning staff to serve on the IDMTF. Notifying the State EOC of disruptions or impending disruptions to the transportation system (e.g., road closures, bridge outages, damage to railways, etc.) and rectification of such disruptions. Assessing the impact of a disaster or emergency upon state transportation facilities, and providing DESPP/DEMHS and/or the State EOC with such written reports as it may require. Requesting teams and equipment from the State debris contractors. Coordinating with public utilities for road clearance activities. Clearing debris from state-maintained roads and bridges. Providing support for search and rescue operations. Providing support to the U.S. Coast Guard Sector of Long Island Sound and DEEP in relation to the closing and subsequent reopening of ports and waterways during or after the occurrence of major natural disasters. Providing public information, via the State EOC and in coordination with the Governor's Office, relative to road conditions and closures, flight service, train schedules, and ferry operations. Releasing sandbags, other material, and equipment as appropriate from ConnDOT garages as requested by DESPP/DEMHS and/or the State EOC. Providing assistance to municipalities for the purposes of debris clearance, inspection, repair and/or condemnation of transportation facilities, once departmental priorities have been met. Providing damage assessors as requested by DESPP/DEMHS to serve on joint federal/state Preliminary Damage Assessment Teams to assess municipal property damages in selected towns. Coordinate with the U.S. Department of Transportation to initiate the State's request for Federal-Aid Highway Emergency Relief program assistance as required. ConnDOT will coordinate on permit procedures for oversized/overweight vehicles (contracting equipment).

Local governments: Each municipality, as a first responder in a disaster situation, is required to make provisions for the safe and sanitary disposal of all solid wastes generated within its boundaries (Connecticut General Statutes (CGS) Section 22a-220) and to make provisions for the separation, collection, processing, and marketing of designated recyclables generated within its boundaries (CGS Section 22a-220(f)). Key elements include: planning, mobilizing, organizing, and controlling a large-scale debris clearance, removal and disposal/recycling operation. Each municipality should prepare a Disaster Debris Management Plan, as an annex to their existing Emergency Management Plan that includes identification of potentially suitable DMS, availability of labor and heavy equipment, and a command structure for debris removal operations. It may also include pre-positioned contracts for both debris removal and monitoring of debris removal operations.

Pre-event Preparation, Planning and Operations

All activities associated with massive debris clearance, removal, and disposal activities depend upon pre-event preparation and planning, and efficient operations. Important components include: separate contracts in-place for debris removal and the monitoring of debris removal contractors' day-to-day operations; the identification of DMS; and debris management operations. Summaries on contracts and phases of clean up are provided below:

Contracts:

State contracts: The State has established pre-need and pre-event contracts through the State Procurement Services/Contract Award process to assist the State in Disaster Debris Management Preparedness. A State contract is in place with both primary and secondary contractors identified for *debris removal operations*. A State contract is in place with only one contractor identified for *debris monitoring*. The Governor may choose to activate the contracts as a result of a Governor-declared Civil Preparedness Emergency. These contracts assure the immediate availability of coordinated debris removal support following a debris-producing incident.

Municipal contracts: City and town governments are responsible for all peoples and property within their boundaries and jurisdictions to the limits of their resources. Each municipality is required to make provisions for the safe and sanitary disposal of all solid wastes generated within its boundaries (CGS Section 22a-220) and to make provisions for the separation, collection, processing, and marketing of designated recyclables generated within its boundaries (CGS Section 22a-220(f)). The State strongly recommends that local governments prepare their own Disaster Debris Management Plan following FEMA and USEPA guidance so as to be better prepared to manage disaster debris within their jurisdictions. FEMA also recommends having pre-positioned contracts for both debris removal as well as monitoring. These contracts must exhibit full and open competition where an adequate and realistic specification or purchase description is publicly solicited and multiple responsible bidders are allowed to compete effectively for the business. It is recommended that municipalities consult the FEMA Recovery Fact Sheet 9580.212 Public Assistance Grant Contracting FAQ for contract guidance.

Debris Management Sites (DMS):

It is important to have DMS pre-identified and ready for use in the event of a disaster event. Debris management guidance from the USACE and FEMA **strongly recommends that both State and local governments be responsible for pre-identifying DMS**. It can be expected that Connecticut's solid waste management infrastructure will be quickly overwhelmed during a catastrophic natural disaster, such as a Category 3 hurricane. Therefore, DMS serve as the additional space needed to accommodate the debris generated. In addition, these sites provide a place to segregate and process the waste subject to the State's solid waste management hierarchy that mandates recycling as the preferred approach to managing the waste stream. Upon request, DEEP will issue an Emergency Authorization for site activities related to the management of debris. It is required that municipalities notify DEEP of the site location, and DEEP in turn will act upon their request for an Emergency Authorization.

- **State:** Critical to the State's debris management operations, is the establishment of DMS to be used for debris originating from state highways and roads as well as other state properties. DMS are those sites that have been pre-identified by the State with the assistance of their debris management contractors, and which have been evaluated and approved by DEEP for the purposes of collection, volume reduction, and transfer to final permitted disposal and recycling facilities. The State recognizes that the capacity of the pre-identified DMS cannot accommodate the amount of debris generated by a Category 3 hurricane. Therefore, the pre-identified State sites are reserved for State debris management activities.

DEEP is responsible for the permitting of these sites (by issuance of an Emergency Authorization), as well as ensuring that they are properly closed out. The goal will be to maximize potential processing and recycling options consistent with the State Solid Waste Management Plan.

The State's debris management contractor is responsible for the set-up, operations, and closeout of the DMS sites, consistent with the requirements of the contract documents and relevant state and federal laws. For any future disaster, sites will be chosen based on past storm experiences so that previously used sites may be used again or new sites may be chosen depending on impact areas, amount of debris, and availability of public and private sites, within minimal transportation distance of the damaged areas. Based on the projections of the amount of debris that could be generated and area impacted, sites will be selected by the State's contractors, in consultation with the IDMTF. Other agencies that may be involved in site selection include OPM, DAS/Bureau of Properties & Facilities Management, and Connecticut Economic Resource Center, Inc. (CERC).

- **Municipalities:** Municipalities must identify their own DMS locations either on municipally-owned land or through an agreement on non-municipally owned land. DEEP is responsible for the permitting of these sites by issuance of an Emergency Authorization.

State of Connecticut's Concept of Operations Plan (ConOps) for Disaster Debris Management, Activation and Use of the State Debris Removal and Monitoring Contracts:

This Plan details the steps that will be taken by the State, its contractors, and other parties so as to facilitate the removal, management, collection and disposal of all debris generated from a catastrophic natural disaster, such as a Category 3 hurricane. This ConOps is tied to the activation and use of the State contracts for disaster debris removal and monitoring.

The debris management strategy for the State is divided into four major operational time periods: pre-landfall phase; phase 1; phase 2; and post-recovery. Phase 1 and Phase 2 are major focus areas. Phase 1 is the initial response, typically occurring during the first 24 to 70 hours following an event, and consists primarily of "pushing" the debris that hinders immediate life saving actions and that poses an immediate threat to public health and safety out-of-the right of way along major roadways. Phase 2, which can last up to a year or longer, consists of removing, segregating, and disposing of the debris that hinders the orderly recovery of the community and poses less immediate threats to health and safety. The State contracts may be initiated as early as Phase 1 if it is determined that the storm event may overwhelm State and local emergency response resources.

Federal - Financial, Direct and Technical Assistance

When the response and recovery efforts are beyond the capacity of both the municipalities and the State, the Governor may request federal assistance, in the form of a Presidential Disaster Declaration. FEMA evaluates the request and recommends to the President the type of federal assistance that is warranted. Assistance is usually provided in the form of financial reimbursement of a portion of the disaster related costs (for example, a 75 percent Federal/ 25 percent State cost share). FEMA can also provide direct and technical assistance. It is prudent to be familiar with FEMA eligibility and reasonable costs guidelines during the planning stage in order to appropriately plan for critical issues such as contracting, monitoring and preparing appropriate documentation to support requests for funding. FEMA and the Public

Assistance Program are governed by the Stafford Act (Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended, 42 U.S.C. 5121 et seq.) and regulations. These laws and regulations provide the criteria for determining eligibility of debris activities for reimbursements. This includes: Stafford Act, Sections 403, 407, 502; 44 CFR, Sections 206.224, 206.225; and FEMA Policies.

Summary

By preparing the *State's Disaster Debris Management Plan as an annex to the State's Natural Disaster Plan*, establishing State's Interagency Debris Management Task Force, establishing State contracts for debris removal operations and monitoring of the debris, and the development of the ConOps Plan, Connecticut has positioned itself to be responsive to meet the emergency needs of the State. At the same time, the Plan and the contracts will expedite enhanced federal assistance to the State in the event of a disaster.

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CHAPTER 1 INTRODUCTION

1.1 Purpose of the Disaster Debris Management Plan (the Plan)

The State of Connecticut's Department of Energy and Environmental Protection (DEEP) has revised the *Disaster Debris Management Plan* dated September 2008. This revised Plan has been prepared pursuant to the authorities of the Commissioner and as an annex to the *State of Connecticut's Natural Disaster Plan, 2009, State's Natural Disaster Plan*. This *Disaster Debris Management Plan* establishes a framework for State agencies and municipalities to facilitate the proper management of debris generated by a natural disaster. The goal is to facilitate prompt and efficient recovery through emergency waste management practices that are both reasonable and cost-effective and, at the same time, are protective of human health and the environment. Implementation of the *Disaster Debris Management Plan* will be coordinated through the State's Emergency Operations Center (EOC) and the State of Connecticut's Concept of Operations Plan for Disaster Debris Management (ConOps).

Types of Natural Disasters: This Plan addresses natural disasters such as: hurricanes, tornadoes, floods, forest fires, earthquakes, ice storms, catastrophic animal mortalities, and catastrophic vegetative waste. Natural disasters precipitate a variety of debris that includes, but is not limited to, trees, stumps, construction and demolition materials, vehicles and other personal property, putrescent food waste, and soil, silt and sediment. Department of Emergency Services and Public Protection's Division of Emergency Management and Homeland Security (DESPP/DEMHS) considers a Category 3 hurricane as the most probable worst-case disaster scenario facing the State. Depending on the type and magnitude of the disaster, the debris field can extend for miles over a large area and be extremely difficult to manage because of the variety and intermingling of the various debris types. While the Plan is written to address natural disaster events, it may also serve as guidance to managing debris resulting from man-made disasters. However, such management may be superseded by other jurisdictions due to the presumption of criminal activity.

Objectives: The objectives of the State's *Disaster Debris Management Plan* are to:

- Serve as a resource for the State and as an annex to the *State's Natural Disaster Plan*, as well as to assist other State agencies and municipalities in their disaster debris management planning efforts.
- Facilitate the implementation of emergency waste management practices so as to ensure that any measures that are undertaken are consistent with protecting Connecticut's natural resources to the greatest extent possible, as well as being consistent with the *State of Connecticut's Solid Waste Management Plan, amended December 2006*. For the purposes of the *State's Disaster Debris Management Plan*, emergency waste management practices can be defined as occurring before, during and/or after a disaster event to alleviate as expeditiously as possible serious conditions which present continued threats to the health or welfare of Connecticut residents.

Outline of State's Disaster Debris Management Plan: The Plan is based on guidance provided by the Federal Emergency Management Agency (FEMA) (www.fema.gov), United States Environmental Protection Agency (USEPA) (www.epa.gov), United States Army Corps of Engineers (USACE) (www.usace.army.mil/), lessons learned from the destructive hurricanes in the gulf coast states in 2004 and 2005, and the State's storm events in 2011 experiences with the January Snowstorm, Tropical Storm Irene and the October Snowstorm, and in 2012 with Hurricane Sandy. The Plan outlines DEEP's

processes to consider, approve or disapprove requests for authorizations, variances, and waivers as needed for rapid and environmentally sound waste management, specifically with regard to managing the natural-disaster debris waste stream. In addition, this Plan outlines debris monitoring roles and responsibilities, and presents an overview of eligible federal reimbursable costs resulting from debris clean up and monitoring. State government agencies and municipalities will be the primary users of this Plan. Municipalities in particular, can make use of the information for planning pre-positioned contracts with waste haulers, as well as identifying disaster Debris Management Sites (DMS) that may be called into use during disaster recovery operations. Much of the information will also be useful to the waste management industry as they develop their own in-house plans for participating in a potential disaster recovery scenario.

Two Phases of Clean Up (large scale debris clearance; removal and disposal management): There are two phases to debris clearance, removal and disposal activities:

- Phase 1 typically occurs during and immediately after the event and is commonly referred to as the first 70 hours. Phase 1 consists of clearing the debris that hinders immediate life saving actions and that poses an immediate threat to public health and safety.
- Phase 2 will be implemented within seven days of the event and consists of removing and disposing of the debris that hinders the orderly recovery of the community and poses less immediate threats to health and safety, activating pre-positioned contracts and notifying citizens of debris removal procedures. For Connecticut's planning purposes, Phase 2 covers debris removal and recovery, and includes moving through the recovery timeline to include post recovery activities such as public assistance, close-out of the DMS, and quality assurance. This Plan outlines the interaction of State government with federal and local governments under these two phases of operations. State and local governments have principal responsibility for coordinating and managing debris removal operations. If State and/or local governments lack the capability to initiate coordinate and manage debris removal operations following a major natural disaster, then the State can request federal assistance.

Pre-event Preparation and Planning - Contracts: State and local governments must plan for and expect to manage debris removal operations following a major natural disaster. Federal assistance is designed only to address situations where the level of debris is catastrophic in scale, or where the capabilities of the State and/or local government to effectively manage such operations are overwhelmed. State and local governments are expected to establish pre-event contracts and/or arrangements with local or regional debris removal contractors, to assure the immediate availability of coordinated debris removal support following a debris-producing event. Emergency recovery operations will be carried out principally by local forces (that may be supported by intrastate mutual aid); then State forces (that may be supported by interstate mutual aid); and, then if needed and requested through FEMA, federal forces.

When a natural disaster event occurs that produces large amounts of debris, effective coordination is required between the Public Assistance (PA) applicant (in this case the State) and FEMA to ensure that debris removal operations are efficient, effective, and eligible for FEMA PA grant funding. PA applicants, whether the State or a municipality, must monitor debris removal operations and document eligible quantities and reasonable expenses to ensure that the work is eligible for PA grant funding. Failure to do so properly may jeopardize this funding.

The types of pre-event contracts that should be in place by the State and municipalities include: (1) debris removal operations, and (2) monitoring of debris cleanup activities as undertaken by the State Contractors retained under the debris removal operations contract.

State Contracts: The State of Connecticut has in place both debris removal and monitoring contracts. These contracts are available for use by State agencies and municipalities. These contracts were prepared pursuant to Connecticut General Statutes (CGS) Title 4a, Chapter 58 - Purchases and Printing. These State contracts are:

Removal: Disaster Debris Management Services for the State of Connecticut. Contract No. 08PSX0027 AA and AB. State Contractors – AshBritt, Inc.; and Phillips & Jordan, Inc. Contract Period – August 26, 2011 through June 30, 2014.

Monitoring: Disaster Debris Monitoring Services for the State of Connecticut; Contract No. 08PSX0028AA. Contractor – Science Applications International Corporation (SAIC) Contract Period – August 26, 2011 through June 30, 2014.

These contracts can be accessed through the CTDAS State Contracting Portal at:

http://www.das.state.ct.us/Purchase/Portal/Portal_Home.asp or through DEEP's website at:
http://www.ct.gov/dep/cwp/view.asp?a=2718&Q=410492&depNav_GID=1646

Municipal Contracts: City and town governments are responsible for all peoples and property within their boundaries and jurisdictions to the limits of their resources. Each municipality is required to make provisions for the safe and sanitary disposal of all solid wastes generated within its boundaries (CGS Section 22a-220) and to make provisions for the separation, collection, processing, and marketing of designated recyclables generated within its boundaries (CGS Section 22a-220(f)). The State strongly recommends that local governments prepare their own Disaster Debris Management Plan following FEMA and USEPA guidance so as to be better prepared to manage disaster debris within their jurisdictions. FEMA also recommends having pre-positioned contracts for both debris removal as well as monitoring. These contracts must exhibit full and open competition where an adequate and realistic specification or purchase description is publicly solicited and multiple responsible bidders are allowed to compete effectively for the business. It is recommended that municipalities consult the FEMA Recovery Fact Sheet 9580.212 Public Assistance Grant Contracting FAQ for contract guidance.

State of Connecticut's Concept of Operations Plan for Disaster Debris Management, Activation and Use of the State Debris Removal and Monitoring Contracts: This Plan details the steps that will be taken by the State, its contractors, and other parties so as to facilitate the removal, management, collection and disposal of all debris generated from a catastrophic natural disaster. This ConOps is tied to the activation and use of the State contracts for disaster debris removal and monitoring.

1.2 Authorities

1.2.1 Federal Authorities

There are a number of federal agencies invested with varying authorities for debris management activities. These agencies include the United States Department of Homeland Security, FEMA, USACE, the Federal Highway Administration (FHWA), USEPA, United States Coast Guard (USCG), and Department of Agriculture which includes the Natural Resource Conservation Service (NRCS), Department of Commerce, and Department of Transportation. The Robert T. Stafford Emergency Relief and Disaster Assistance Act (PL 93-288, as amended, is commonly referred to as the *Stafford Act*) is the federal legislation that creates a national program for disaster preparedness, response, recovery, and mitigation. This Act constitutes the statutory authority for most federal disaster response and its programs.

Financial, direct and technical assistance: When the response and recovery effort appears to be beyond the capacity of both the State and municipalities, the Governor may request federal assistance, in the form

of a Presidential Disaster Declaration. FEMA evaluates the request and recommends to the President the type of federal assistance that is warranted. Public Assistance (PA) is usually provided in the form of financial reimbursement of a portion of the disaster related costs (usually a 75 percent Federal/ 25 percent State cost share). FEMA can also provide direct and technical assistance. It is prudent to be familiar with FEMA eligibility and reasonable costs guidelines during the planning stage in order to appropriately plan for critical issues such as contracting, monitoring and preparing appropriate documentation to support requests for funding. FEMA and the PA Program are governed by the law defined in the Stafford Act and regulations provided in Title 44 of Code of Federal Regulations (44 CFR). These laws and regulations provide the criteria for determining eligibility of debris activities. This includes: Stafford Act, Sections 403, 407, 502; Title 44 CFR, Sections 206.224, 206.225; and FEMA Policies.

Compliance with the National Incident Management Systems (NIMS): NIMS provides a consistent nationwide approach for federal, state, local government, private sector and non-governmental organizations to work together to prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity. Connecticut's *Disaster Debris Management Plan* is NIMS compliant because it takes into account three key organizational systems: the Incident Command System (the State is run using ICMs), the multi-agency coordination system, and the public informational system. The Plan will be implemented to comply with the NIMS approach in cooperation with other State and federal agencies, as well as the municipalities.

1.2.2. State Authorities

CGS Title 28, Chapter 517 provides the authority for the State and its political subdivisions to prepare for and respond to natural disasters and other emergencies. Connecticut's emergency management program, developed under the authority of CGS Title 28, complies with the federal program established by the Federal Stafford Act. In addition, CGS Title 28, Chapter 518 Section 28-23a entitled *Emergency Management Assistance Compact* provides for mutual assistance between the states entering into this compact in managing any emergency or disaster that is duly declared by the Governor of the affected State.

With regard to debris management, the following legal citations from CGS Title 28 that are most relevant include:

- Section 28-7(f): “In the event of a serious disaster or sudden emergency, when such action is deemed necessary for the protection of the health and safety of the people, and upon the request of the local chief executive authority, the Governor or the Commissioner [of the Department of Emergency Services and Public Protection] may authorize the temporary use of such civil preparedness forces as he deems necessary. Personnel of such civil preparedness forces shall be so employed only with their consent.”
- Section 28-8a (a): “The chief executive officer of the municipality in which a major disaster or emergency occurs, or his designee, may take such action as he deems necessary to mitigate the major disaster or emergency, and to secure and preserve any documents and evidence pertinent to and necessary for a future investigation.”
- Section 28-9: In the event of, among other things, a serious disaster, the Governor may declare that a state of civil preparedness emergency exists. Once this declaration is made, the Governor has a number of significant powers, including the following:
 - Section 28-9(a)—the Governor may “modify or suspend in whole or in part, by order . . . any statute, regulation, requirement or part thereof whenever in his opinion it is in conflict with the efficient and expeditious execution of civil preparedness functions.”

- Section 28-9(b)—the Governor may “order into action all or any part of the department or local or joint organizations for civil preparedness mobile support units or any other civil preparedness forces.”
- Section 28-9(d)—the Governor may “designate such vehicles and persons as shall be permitted to move and the routes they shall follow.”
- Section 28-9(g)—the Governor may “take such other steps as are reasonably necessary in the light of the emergency to protect the health, safety and welfare of the people of the state, to prevent or minimize loss or destruction of property, and to minimize the effects of hostile action.”
- Section 28-9c (a): Removal of debris or wreckage. Governor’s Powers. Whenever the Governor has declared a disaster emergency, or the President, at the request of the Governor, has declared a major disaster or emergency to exist in Connecticut, the Governor is authorized (1) “Notwithstanding any other provision of law, through the use of state departments or agencies, or the use of any of the state’s instrumentalities, to clear or remove from publicly or privately owned land or water, debris and wreckage which may threaten public health or safety, or public or private property; (2) to accept funds from the federal government and utilize such funds to make grants to any political subdivision for the purpose of removing debris or wreckage from publicly or privately owned land or water.”
BUT— Section 28-9c (b) (1): “Authority under this section shall not be exercised unless the affected political subdivision, corporation or individual owning such property shall first present an unconditional authorization for removal of such debris or wreckage from public and private property and, in the case of removal of debris or wreckage from private property, shall first agree to indemnify the state against any claim arising from such removal; (2) whenever the Governor provides for clearance of debris or wreckage pursuant to subsection (a), employees of the designated state agencies or individuals appointed by the state are authorized to enter upon private land or waters and perform any tasks necessary to the removal or clearance operation.”
- Section 28-11: During the existence of a civil preparedness or public health emergency, the Governor may, in the event of shortage or disaster making such action necessary for the protection of the public, take possession of, among other things, “any land or buildings.” This statute provides very specific guidance on the process of taking real property, and the terms of just compensation for such a taking.

With regard to State Agency roles and responsibilities associated with disaster debris management, the following narrative has been taken from the State of Connecticut’s Concept of Operations Plan for Disaster Debris Management.

1.2.2.1 Department of Emergency Services and Public Protection, Division of Emergency Management and Homeland Security (DESPP/DEMHS)

Statutory authorities for DESPP/DEMHS are set forth in CGS Title 28, Chapter 517 Civil Preparedness, Sections 28-1 through 28-22. CGS Section 28-1a establishes DESPP/DEMHS and its mission is to direct and coordinate all available resources to protect the life and property of the citizens of Connecticut in the event of a disaster or crisis, through a collaborative program of prevention, planning, preparedness, response, recovery, and public education. DESPP/DEMHS has primary responsibility for development and implementation of the State’s emergency management program. DESPP/DEMHS, on behalf of the Governor and in coordination with DEEP, Connecticut’s Department of Transportation (ConnDOT), and

its umbrella, DESPP, will prioritize the impacted areas and resource needs. DESPP/DEMHS has divided the State into five emergency management regions. DESPP/DEMHS Regional Offices are responsible for providing administrative support and planning assistance to local governments in their jurisdictions. Please note: the DEMHS regional designations do not follow county lines. Therefore, it is necessary for the regional offices to keep this distinction in mind when providing assistance or information to FEMA for calculating threshold expenses for reimbursement. During emergencies, the Regional Offices serve as mutual aid coordinators and communications links between towns and the EOC. Map 1-1 illustrates the eight counties overlaid by the five DESPP/DEMHS Emergency Management Regions. Table 1-1 provides a listing of the municipalities located in each of the Emergency Management Regions.

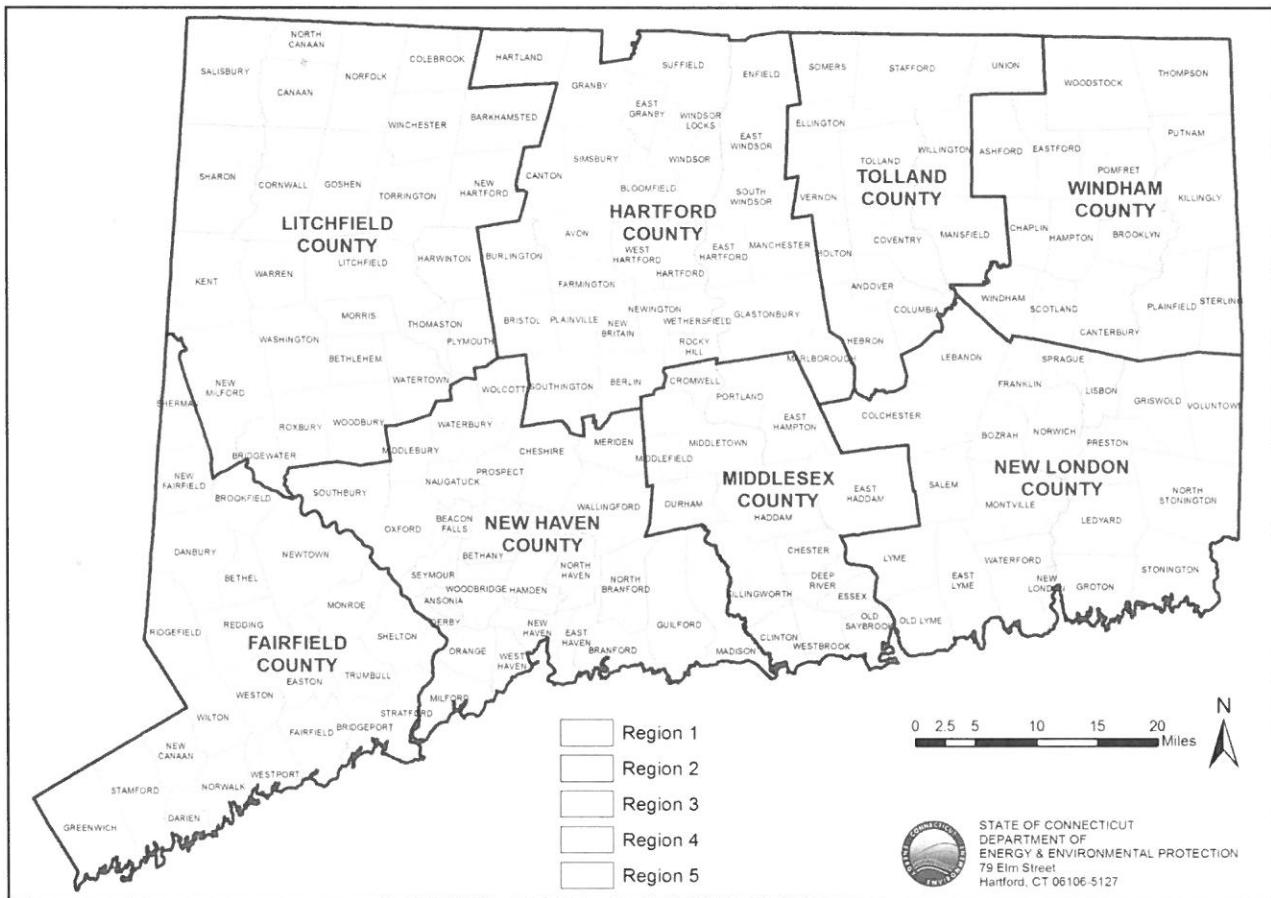
During emergencies, the State EOC is staffed with representatives of key state agencies and private companies. The State EOC maintains communications with State departmental EOCs, federal agencies and facilities, private agency EOCs, and the municipalities through their DESPP/DEMHS Regional Offices. The Media Center in the State EOC is used as a Joint Information Center (JIC) by federal and State agencies, and private companies involved in responding to natural disaster. The State EOC operates when an emergency event occurs or is imminent and stays in operation until emergency operations are no longer needed. On-going cleanup operations related to the disaster event may continue after the State EOC is demobilized.

State of Connecticut's State Response Framework (SRF), August 2011: In accordance with CGS Section 28-5(b), the SRF was prepared by DESPP/DEMHS. The SRF should be read in conjunction with the State's emergency management and response plans, including the *State's Natural Disaster Plan*. The purpose of the State Response Framework (the Framework or the SRF) is to describe the interaction of state government with local, federal and tribal governments, nongovernmental response organizations and other private sector partners, the media, and the public in implementing emergency response and recovery functions in times of crisis. In general, the Framework describes how the State of Connecticut and its partners will work together to support local governments and their residents in responding to disasters and emergencies. State Response Framework Concepts describes the general emergency operations concepts that normally apply in all disasters and emergencies requiring a state level response are described. The SRF outlines the general responsibilities of the various emergency management partners at the local, state, and federal government level, as well as the private sector.

State of Connecticut Natural Disaster Plan, 2009: The *State's Natural Disaster Plan* establishes the mission assignments of State agencies in responding to natural disasters of a severity and magnitude typical for Connecticut. The *State's Natural Disaster Plan* also describes the interaction of State government with local governments, private response organizations (e.g., public utilities, the American Red Cross) and the federal government in natural disaster situations. In any type of disaster or emergency, State agencies must first fulfill departmental mandates established by State statutes, regulations or executive orders and then provide support to local authorities as requested, available and appropriate. Exceptions to these priorities are made only in cases of imminent peril to life and health. The *State's Natural Disaster Plan* is implemented by the order of the Governor. Under the section entitled *Natural Disaster Operations*, there is a discussion on debris management that covers basic areas of responsibility; local debris management policies regarding debris on private property; responsibilities of local officials to monitor debris management operations; federal/state support of local debris management operations; other debris management support; and statutory reference. In the *State's Natural Disaster Plan*, related debris management assignments were made to DEEP, ConnDOT, Department of Administrative Services (DAS), Bureau of Property and Facilities Management (DAS/BPFM), and other State agencies, including the Military Department.

State of Connecticut
 Disaster Debris Management Plan, revised June 2013
 Annex to the State Natural Disaster Plan, 2009

Map 1-1: Counties and DESPP/DEMHS Emergency Management Regions



**Table 1-1: Emergency Management Regions and Municipalities assigned per Region,
 DESPP/DEMHS**

| Region 1 | Region 2 | Region 3 | Region 4 | Region 5 |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| <i>Towns in Region (14)</i> | <i>Towns in Region (30)</i> | <i>Towns in Region (41)</i> | <i>Towns in Region (44)</i> | <i>Towns in Region (43)</i> |
| Bridgeport | Ansonia | Andover | Ashford | Barkhamsted |
| Darien | Bethany | Avon | Bozrah | Beacon Falls |
| Easton | Branford | Berlin | Brooklyn | Bethel |
| Fairfield | Cheshire | Bloomfield | Canterbury | Bethlehem |
| Greenwich | Chester | Bolton | Chaplin | Bridgewater |
| Monroe | Clinton | Bristol | Colchester | Brookfield |
| New Canaan | Deep River | Burlington | Columbia | Canaan |
| Norwalk | Derby | Canton | Coventry | Colebrook |
| Stamford | Durham | Cromwell | East Lyme | Cornwall |
| Stratford | East Haven | East Granby | Eastford | Danbury |
| Trumbull | Essex | East Haddam | Franklin | Goshen |
| Weston | Guilford | East Hampton | Griswold | Hartland |
| Westport | Haddam | East Hartford | Groton City | Harwinton |
| Wilton | Hamden | East Windsor | Groton Town | Kent |
| | Killingworth | Ellington | Hampton | Litchfield |
| | Madison | Enfield | Killingly | Middlebury |
| | Meriden | Farmington | Lebanon | Morris |
| | Middlefield | Glastonbury | Ledyard | Naugatuck |
| | Milford | Granby | Lisbon | New Fairfield |
| | New Haven | Hartford | Lyme | New Hartford |
| | North Branford | Hebron | Mansfield | New Milford |
| | North Haven | Manchester | Montville | Newtown |
| | Old Saybrook | Marlborough | New London | Norfolk |
| | Orange | Middletown | North Stonington | North Canaan |
| | Seymour | New Britain | Norwich | Oxford |
| | Shelton | Newington | Old Lyme | Plymouth |
| | Wallingford | Plainville | Plainfield | Prospect |
| | West Haven | Portland | Pomfret | Redding |
| | Westbrook | Rocky Hill | Preston | Ridgefield |
| | Woodbridge | Simsbury | Putnam | Roxbury |
| | | Somers | Salem | Salisbury |
| | | South Windsor | Scotland | Sharon |
| | | Southington | Sprague | Sherman |
| | | Stafford | Sterling | Southbury |
| | | Suffield | Stonington | Thomaston |
| | | Tolland | Thompson | Torrington |
| | | Vernon | Union | Warren |
| | | West Hartford | Voluntown | Washington |
| | | Wethersfield | Waterford | Waterbury |
| | | Windsor | Willington | Watertown |
| | | Windsor Locks | Windham | Winchester |
| | | | Woodstock | Wolcott |
| | | | Mashantucket Pequot | Woodbury |
| | | | Mohegan Tribal Nation | |

1.2.2.2 Department of Energy and Environmental Protection (DEEP)

DEEP is charged with conserving, improving and protecting the natural resources and the environment of the state of Connecticut as well as making cheaper, cleaner and more reliable energy available for the people and businesses of the state. DEEP was established on July 1, 2011 with the consolidation of the Department of Environmental Protection, the Department of Public Utility Control, and energy policy staff from other areas of state government.

DEEP achieves its mission through regulation, monitoring, inspection, and enforcement and licensing procedures that help control air, land, and water pollution in order to protect public health, safety, welfare and natural resources. CGS Section 22a-5 defines the duties and powers of the Commissioner and authorizes the Commissioner to carry out the environmental policies of the State and grants all powers necessary and convenient to faithfully discharge this duty. DEEP has prepared the *Disaster Debris Management Plan* under this authority. Waste disposal operations in the State are regulated by statutes listed under Title 22a of the CGS, Chapter 439 Environmental Protection Department and State Policy and Chapter 446d Solid Waste Management. Emergency authorities for disaster debris cleanup include: CGS Section 22a-6k Emergency authorization for regulated activity; and CGS Section 22a-174(f) Powers of the Commissioner

Consistency with State of Connecticut's Solid Waste Management Plan, amended December 2006 (SWMP): The SWMP serves as the basis for Connecticut's solid waste management planning and decision making for the period 2005 through 2024. The SWMP Plan addresses a wide range of solid wastes, focusing primarily on municipal solid waste and debris resulting from construction and demolition activities. As per CGS Section 22a-229, "(a)...any action taken by a person, municipality or regional authority that is governed by this chapter shall be consistent with such plan." The SWMP identifies DEEP with the task to develop a Disaster Debris Management Plan that is consistent with the SWMP's disaster debris management strategy. The strategy states that disaster debris management that is implemented by State agencies and municipalities will be based on recycling and material separation at the point of generation and at staging/processing locations and that the goal will be to maximize potential processing and recycling options. This strategy will be of highest priority, and public education together with municipal, State, and federal cooperation will be imperative to effectively carry out this mission.

Consistency with Connecticut's Natural Hazard Mitigation Plan: Connecticut adopted a Natural Hazard Mitigation Plan (NHMP) (update in December 2010) to meet FEMA guidelines set forth in the Disaster Mitigation Act of 2000. This Plan represents the State of Connecticut's efforts to approach mitigating the effects of natural disasters on a multi-hazard basis, and shifts from a disaster-response driven system to one based on effective hazard mitigation planning. The related strategies and activities outlined in this Plan provide a guide to assist Connecticut in working towards achieving these goals that will be implemented or initiated during the time period encompassing this Natural Hazards Mitigation Plan update. The State of Connecticut believes in the importance of natural hazards mitigation planning and strategies will need to be developed. The adoption of this Plan allows Connecticut to be eligible for Federal funding equal to 15% of the total disaster damages from a presidentially declared disaster under the FEMA Hazard Mitigation Grant Program (HMGP). The NHMP can be found at http://www.ct.gov/dep/lib/dep/water_inland/hazard_mitigation/2010_nhmp.pdf.

1.2.2.3 Department of Labor - Division of Occupational Safety and Health (DOL)

The Connecticut Department of Labor's Division of Occupational Safety and Health is referred to as CONN-OSHA. CGS Chapter 571 Occupational Safety and Health Act, Sections 31-367 through 31-385 establishes this Division and outlines its authorities and responsibilities. CONN-OSHA administers Connecticut's Public Employer Only State Plan and enforces occupational safety and health standards as they apply to all municipal and State employees. As a State Plan, CONN-OSHA adopts and enforces standards that are at least as effective as the federal requirements. CONN-OSHA does not enforce